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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,656	02/13/2004	Keiji Tomooka	29287/142	5642

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EXAMINER

PHAN, HANH

ART UNIT PAPER NUMBER

2638

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/777,656	TOMOOKA ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 05/24/2005.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,875,046 (Tomooka et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-5 of the instant application are encompassed by claims 1-12 of U.S. Patent No. 5,875,046 (Tomooka et al).

Regarding claim 1, Tomooka et al (US Patent No. 5,875,046) discloses an optical transmission equipment for transmitting an amplified optical data signal and a supervisory optical signal, comprising:

a pumping light source outputting a pumping light,

a doped fiber inputting a data optical signal and the pumping light, and outputting said amplified data optical signal

a supervisory optical source outputting said supervisory optical signal, and
an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said supervisory optical signal is substantial equal to a wavelength of said pumping light (see claim 4 of US Patent No. 5,875,046).

Regarding claim 2, Tomooka et al (US Patent No. 5,875,046) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

a first pumping light source outputting a first pumping light,
a second pumping light source outputting a second pumping light,
a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
a supervisory optical source outputting said supervisory optical signal, and
an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal, wherein a wavelength of said supervisory optical signal is substantially equal to at least a wavelength of one of said first and second pumping light (see claim 10 of US Patent No. 5,875,046).

Regarding claim 3, Tomooka et al (US Patent No. 5,875,046) discloses wherein said first pumping light is input to said doped fiber in a same direction as a

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propagating direction of said data optical signal, and wherein said second pumping light is input to said doped fiber in an opposite direction to said propagating direction of said data optical signal (see claim 10 of US Patent No. 5,875,046).

Regarding claim 4, Tomooka et al (US Patent No. 5,875,046) discloses wherein the wavelength of said first pumping light is substantially equal to the wavelength of said second pumping light (see claim 10 of US Patent No. 5,875,046).

Regarding claim 5, Tomooka et al (US Patent No. 5,875,046) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source outputting a first pumping light,
- a second pumping light source outputting a second pumping light,
- a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said first pumping light is substantially equal to a wavelength of said second pumping light (see claim 10 of US Patent No. 5,875,046).

4. Claims 1-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 5,812,289 (Tomooka et al). Although the conflicting claims are not identical, they are not

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patentably distinct from each other because the limitations recited in claims 1-5 of the instant application are encompassed by claims 1-26 of U.S. Patent No. 5,812,289 (Tomooka et al).

Regarding claim 1, Tomooka et al (US Patent No. 5,812,289) discloses an optical transmission equipment for transmitting an amplified optical data signal and a supervisory optical signal, comprising:

- a pumping light source outputting a pumping light,
- a doped fiber inputting a data optical signal and the pumping light, and outputting said amplified data optical signal
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said supervisory optical signal is substantial equal to a wavelength of said pumping light (see claim 6 of US Patent No. 5,812,289).

Regarding claim 2, Tomooka et al (US Patent No. 5,812,289) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source outputting a first pumping light,
- a second pumping light source outputting a second pumping light,
- a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
- a supervisory optical source outputting said supervisory optical signal, and

an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal, wherein a wavelength of said supervisory optical signal is substantially equal to at least a wavelength of one of said first and second pumping light (see claim 16 of US Patent No. 5,812,289).

Regarding claim 3, Tomooka et al (US Patent No. 5,812,289) discloses wherein said first pumping light is input to said doped fiber in a same direction as a propagating direction of said data optical signal, and wherein said second pumping light is input to said doped fiber in an opposite direction to said propagating direction of said data optical signal (see claim 16 of US Patent No. 5,812,289).

Regarding claim 4, Tomooka et al (US Patent No. 5,812,289) discloses wherein the wavelength of said first pumping light is substantially equal to the wavelength of said second pumping light (see claim 16 of US Patent No. 5,812,289).

Regarding claim 5, Tomooka et al (US Patent No. 5,812,289) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source outputting a first pumping light,
- a second pumping light source outputting a second pumping light,
- a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

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wherein a wavelength of said first pumping light is substantially equal to a wavelength of said second pumping light (see claim 16 of US Patent No. 5,812,289).

5. Claims 1-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 5,500,756 (Tsushima et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-5 of the instant application are encompassed by claims 1-13 of U.S. Patent No. 5,500,756 (Tsushima et al).

Regarding claim 1, Tsushima et al (US Patent No. 5,500,756) discloses an optical transmission equipment for transmitting an amplified optical data signal and a supervisory optical signal, comprising:

- a pumping light source outputting a pumping light,
- a doped fiber inputting a data optical signal and the pumping light, and outputting said amplified data optical signal
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said supervisory optical signal is substantial equal to a wavelength of said pumping light (see claim 1 of US Patent No. 5,500,756).

Regarding claim 2, Tsushima et al (US Patent No. 5,500,756) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source outputting a first pumping light,
- a second pumping light source outputting a second pumping light,
- a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal, wherein a wavelength of said supervisory optical signal is substantially equal to at least a wavelength of one of said first and second pumping light (see claim 1 of US Patent No. 5,500,756).

Regarding claim 3, Tsushima et al (US Patent No. 5,500,756) discloses wherein said first pumping light is input to said doped fiber in a same direction as a propagating direction of said data optical signal, and wherein said second pumping light is input to said doped fiber in an opposite direction to said propagating direction of said data optical signal (see claim 1 of US Patent No. 5,500,756).

Regarding claim 4, Tsushima et al (US Patent No. 5,500,756) discloses wherein the wavelength of said first pumping light is substantially equal to the wavelength of said second pumping light (see claim 1 of US Patent No. 5,500,756).

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Regarding claim 5, Tsushima et al (US Patent No. 5,500,756) discloses an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source outputting a first pumping light,
- a second pumping light source outputting a second pumping light,
- a doped fiber inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,
- a supervisory optical source outputting said supervisory optical signal, and
- an optical coupler multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said first pumping light is substantially equal to a wavelength of said second pumping light (see claim 1 of US Patent No. 5,500,756).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Fatehi et al (US Patent No. 5,229,876).

Regarding claim 1, referring to Figures 4-6, Fatehi teaches an optical transmission equipment for transmitting an amplified optical data signal and a supervisory optical signal, comprising:

- a pumping light source (i.e., pump light source 74, Fig. 4) outputting a pumping light,

- a doped fiber (i.e., a doped fiber 51, Fig. 4) inputting a data optical signal (i.e., data in, Fig. 4) and the pumping light, and out-putting the amplified data optical signal

- a supervisory optical source (i.e., pump light source 74, Fig. 4) outputting the supervisory optical signal (i.e., SUPV. OUT, Fig. 4), and

- an optical coupler (i.e., coupler 46, Fig. 4) multiplexing the amplified data optical signal and the supervisory optical signal,

wherein a wavelength of the supervisory optical signal is substantial equal to a wavelength of the pumping light (i.e., wavelength of the supervisory optical signal is substantial equal to a wavelength of the pumping light 1.48 μ m, col. 5, lines 54-67 and col. 6, lines 1-61).

Regarding claim 2, referring to Figure 6, Fatehi teaches an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

- a first pumping light source (i.e., first pump light source 74, Fig. 6) outputting a first pumping light,

- a second pumping light source (i.e., second pumping light source 94, Fig. 6) outputting a second pumping light,

a doped fiber (i.e., a doped fiber 51, Fig. 6) inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,

a supervisory optical source (i.e., the first pump light source 74, Fig. 6) outputting said supervisory optical signal, and

an optical coupler (i.e., coupler 90, Fig. 6) multiplexing said amplified data optical signal and said supervisory optical signal, wherein a wavelength of said supervisory optical signal is substantially equal to at least a wavelength of one of said first and second pumping light (col. 5, lines 54-67 and col. 6, lines 1-61).

Regarding claim 3, Fatehi further teaches wherein said first pumping light is input to said doped fiber in a same direction as a propagating direction of said data optical signal, and wherein said second pumping light is input to said doped fiber in an opposite direction to said propagating direction of said data optical signal (Fig. 6).

Regarding claim 4, Fatehi further teaches wherein the wavelength of said first pumping light is substantially equal to the wavelength of said second pumping light (Fig. 6).

Regarding claim 5, referring to Figure 6, Fatehi teaches an optical transmission equipment for transmitting an amplified data optical signal and a supervisory optical signal, comprising:

a first pumping light source (74, Fig. 6) outputting a first pumping light,

a second pumping light source (94, Fig. 6) outputting a second pumping light,

a doped fiber (51, Fig. 6) inputting a data optical signal and said first and second pumping light, and outputting said amplified data optical signal,

a supervisory optical source (74, Fig. 6) outputting said supervisory optical signal, and

an optical coupler (90, Fig. 6) multiplexing said amplified data optical signal and said supervisory optical signal,

wherein a wavelength of said first pumping light is substantially equal to a wavelength of said second pumping light (col. 5, lines 54-67 and col. 6, lines 1-61).

Response to Arguments

8. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


HANH PHAN
PRIMARY EXAMINER